

REMARKS

In accordance with the foregoing, claims 9, 17, 20, 26, 41, 49, 52, 58, and 61 have been amended. Claims 1-8, 29-40, 44 and 55 have been cancelled. Claims 9-28, 41-43, 45-54 and 56-61 are pending and under consideration.

Rejection Under 35 U.S.C. §103(a)

In the outstanding Office Action at page 3, claims 1-28, 30-43, 45-54 and 56-60 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,118,586 to Tanabe, et al. and further in view of Japanese Utility Model No. 258847 to Landis. Of the rejected claims, claims 1-8, 29-40, 44, and 55 have been cancelled. This rejection is traversed and reconsideration is respectfully requested.

Independent claim 9 is directed to a display device. In relevant part, independent claim 9 has been amended to recite "a liquid crystal display layer which comprises an array of pixels arranged in a matrix and forms an image to be displayed" and "wherein said diffraction grating cells are located at positions corresponding to the pixels." Independent claims 20, 41, 52, and 61 have been similarly amended. Support for these amendments can be found in the originally filed Specification, at least at page 25, line 9, to page 26, line 3.

As described in the originally filed Specification at page 25, line 9, to page 26, line 3, when a diffraction grating cell array (optical diffusion film) is formed by arranging a number of diffraction grating cells having the effect of scattering light, and if the gratings of the diffraction grating cells are interrupted at the boundaries of the cells, the effect of controlling light by diffraction is weakened at the boundaries of the cells. Many display devices, such as liquid crystal display (LCD) devices include pixels that are separated by gaps. In the case of a liquid crystal display device, the black matrix surrounding the liquid crystal cells as a non-pixel component provides these gaps. In a non-limiting example, light from the pixels may be efficiently used by arranging an optical diffusion film including blazed type (or binary type) diffraction grating cells on the image display surface of the display device carrying pixels thereon in such a way that the diffraction grating cells are located at positions corresponding to the pixels. Moreover, in another non-limiting example, such an arrangement may effectively prevent the light controlling effect of the display device from being weakened by diffraction along the boundaries of the diffraction grating cells.

In contrast to the present invention, Tanabe, et al., cited in the outstanding Office Action, merely teaches that a plurality of liquid crystals filled on a transparent substrate of a size

of 120 x 120 mm are formed and are finally individually separated. Tanabe, et al. at col. 10, lines 63-67. At page 6 of the outstanding Office Action, Tanabe, et al. at col. 16, lines 23-25 and col. 10 lines 63-67 were asserted to teach that the liquid crystal display layer comprises an array of pixels arranged in a matrix. Applicants respectfully disagree. Col. 10, lines 63-67, as noted above, teaches only that a plurality of liquid crystals filled on a transparent substrate of a size of 120 x 120 mm are formed and are finally individually separated. Col. 16, lines 23-25, of Tanabe, et al. teaches only that a phase difference film was bonded on the second glass substrate, and a UV curable acrylic resin was coated thereon.

For at least these reasons, Applicants respectfully submit that Tanabe, et al. fails to teach or suggest all of the features of amended independent claims 9, 20, 41, 52, and 61, and those claims depending directly or indirectly therefrom. Landis is alleged to teach only a diffraction grating pattern of 0 to 300 micrometers to provide microcharacters having desired properties including anti-counterfeiting means. As Landis fails to cure the deficiencies of Tanabe, et al., Applicants respectfully submit that Tanabe, et al. and Landis, taken alone or in combination, fail to teach or suggest all of the features of amended independent claims 9, 20, 41, 52, and 61. Accordingly, Applicants respectfully submit that amended independent claims 9, 20, 41, 52, and 61 patentably distinguish over the prior art and are in condition for allowance.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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